SESSION 2
Tailoring Requirements, Standards, and Authorization Bases to Changing DOE Missions and Hazards to Facilitate Innovative Cleanup Approaches and Operational Efficiency, Reduce Time at Risk, and Assure Protection of Our Workers

Session Members

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Facilitators

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The following topics were researched and discussed by the breakout session committee:

* Eliminating redundancy of requirements (Lead – Bill Madia)
* Perspective on DOE authorization basis process (Lead – Richard Black)
* Establishing non-prescriptive performance objectives that allow contractors to develop detailed decontamination and decommissioning (D&D) plans to meet these DOE objectives (Lead – Alan Parker)
* Achieving and maintaining a standards-based safety system (Lead – Bruce Tarter)
* Maintaining federal and contractor technical capabilities (Lead – Kathy Carlson)
* Fernald safety and health requirements for a closure site (Lead – Susan Brechbill)

Action Items

* Pilot the development of a model contract and associated certification procedures for reducing redundancy in requirements at PNNL and ORNL [also see Session 4] (Lead – B. Madia)
* Conduct workshops to standardize innovative ideas from pilot programs and facilitate their application elsewhere in the system (Lead – K. Carlson)
* Re-evaluate DOE's review and approval process for all safety management programs (Lead – TBD)
* Provide a progress report at the Spring 2002 ISMS Workshop and a path forward for full implementation (Lead – K. Carlson)

The main focus of this session was to discuss the issues and possible solutions to the complex-wide problem of the appropriate tailoring of environment, safety, and health (ES&H) requirements and safety authorization bases to fit decontamination and decommissioning (D&D) and laboratory work environments. The session discussed issues on (a) eliminating duplicative or burdensome DOE order requirements, (b) using Work Smart Standards (WSS) or other approved DOE processes to "right size" requirements in contracts, (c) developing a safety authorization basis without an unnecessary nuclear bias, (d) ensuring that requirements are not misinterpreted and

misapplied, and (e) obtaining and maintaining the necessary technical capabilities to ensure safety.

The committee discussed the potential overlap of ES&H orders with federal/state regulations and commercial standards, the administrative costs associated with DOE's approach to requirements management, and costs associated with multiple and inconsistent interpretations and oversight of DOE orders. The safety authorization basis framework was also reviewed and recommendations made for achieving a cost-effective and streamlined process through a more effective use of existing directives and regulatory frameworks and improved business management practices.

The committee reviewed the principles for taking ISM to the next level, some of which included: tailoring requirements to reflect risks and facilitate achievement of mission objectives while complying with regulatory requirements and industry standards; instituting a mature self-assessment process including validation by renowned experts and/or by external management certification systems (e.g., Voluntary Protection Program, ISO 14001[1]); linking accountability for performance with contractor rewards and incentives; and requiring communication, commitment, and consistency in application by management. The concepts were exemplified by the presentation of ongoing pilot programs highlighted below.

Lawrence Livermore National Laboratory (LLNL) and Los Alamos National Laboratory (LANL) used the WSS process in active partnership with DOE and the University of California as a key component of their ISM to tailor ES&H standards to reflect work hazards and a rapidly changing research and development (R&D) work environment. The Nevada Test Site is also implementing WSS that draw on industry standards and is focusing work authorization processes on major risks and controls. Nevada Test Site's next steps will be enhanced, contractor self-assessment programs and increased use of recognized experts. A pilot at the Fernald Environmental Management Project resulted in mutual agreement among headquarters, field, and contractor staff on a set of requirements for an accelerated closure site. This pilot demonstrated the inherent flexibility in most DOE orders to accomplish D&D work if requirements are properly interpreted and applied. At Sandia National Laboratories, a self-governance model is currently being piloted for the non-nuclear, non-security work in a year-long study initiated October 2001. This pilot's objectives are to streamline requirements by adopting appropriate commercial standards, and to develop and implement an assurance and oversight model involving renowned experts. The Kansas City Plant introduced industrial standards into their practices in 1996, reducing full-time equivalents and costs; the Kansas City program has since matured beyond the pilot phase.

Additionally, challenges associated with maintaining federal and contractor technical capabilities were discussed and recommendations made regarding succession and technical capability planning, recruitment and retention strategies, roles and responsibilities articulation, and performance-based incentive programs.

[1] ISO 14001, Environmental Management Systems, published by the International Organization for Standardization.

Principle Findings and Recommendations

The committee findings are presented below by sub-topic area.

1. Performance-Based Requirements

DOE's safety management approach must focus on monitoring the contractor's delivery of results established by the contract and responsible, safe stewardship of government assets. The committee recommended the development of well-defined performance-based management systems that can be certified; the development of a model contract that references regulations, industrial standards, and selected DOE directives for safety management; and the incorporation of a model Department oversight program to be tested as a means to reduce redundant requirements. Oak Ridge National Laboratory (ORNL) was proposed as a DOE facility where the above recommendations could be piloted for all facilities and operations, including nuclear and non-nuclear.

2. Streamlining the Safety Authorization Basis Process

To streamline the authorization basis (AB) process, the committee recommended that: 1) for more complex work, the DOE and contractors engage earlier and more often in the AB process to avoid surprises; 2) consensus commercial standards be adopted where possible; 3) DOE's regulatory framework, which adopts and references commercial standards, be more effectively utilized; 4) greater use of the flexibility in DOE orders to reflect facility mission, life cycle, and work hazards be a focus; 5) DOE's review and approval process be streamlined; and 6) rewards and incentive programs be managed through accountability and performance.

3. Establishing Non-Prescriptive Performance Objectives

To establish non-prescriptive performance objectives, the objectives should be defined (i.e., what, not how) jointly between the contractor and DOE, authorization basis process should be streamlined for specific activities, and review and approval processes established for specific authorization bases.

4. Achieving and Maintaining a Standards-Based Safety System

The committee recommended continuing the transition to a standards-based ES&H management system. While implementation of the WSS process is challenging, reinforcement of the process was proposed through strong management support for new and revised requirements. The committee recommended involving the laboratories, stakeholders, and other contractor personnel in developing new requirements and adopting commercial standards where possible.

5. Maintaining Federal and Contractor Technical Capabilities

The committee recommended that the human resources tools already in place be fully utilized to develop and maintain technical staffing plans for the next five years based on missions, and that DOE adhere to the plans.

At Issue

Comments by the conference participants identified the following subjects at issue and/or re-affirmed committee findings. One comment was that WSS has been in place at several DOE laboratories (including LLNL, LANL, and LBNL), there has been little relief in DOE oversight and requirements, and costs are still double to triple those of commercial laboratories. A second issue raised was the "creeping" of requirements back into innovative contracts that had been previously and successfully negotiated to reduce redundancy while managing risk. Concern was voiced over the lack of guidance from line supervisors regarding interpretations of standards and contract clauses. It was stated that the "creep" of requirements many times results from inconsistent interpretations of requirements to address local issues, and the risk-averse tendencies of DOE and contractor personnel. Finally, the use of national or consensus standards was recommended to result in greater consistency and ease of use by contractors who work in both DOE and non-DOE environments.